

BRIEF BACKGROUND—DEFORESTATION & FOREST DEGRADATION: MUCH MORE THAN AN ENVIRONMENTAL ISSUE...A PRESSING DEVELOPMENT CHALLENGE

Forest Cover Summary

- Forest cover in 1985 = ~38% of the land area $(94,080 \text{km}^2)$
- Forest cover in 2022 = ~24%
- Deforestation rate = 0.6% 0.7% per year ($\sim 15,000$ ha/year)
- Forest degradation (thinning) is responsible for <u>2-3</u> times the tree loss (equiv. to 30K-45K ha/yr)

The Primary Driver - The Lack of Urban Cooking/Heating Energy Alternatives

- More than 80% of Malawi's total primary energy supply comes from biomass
- Approx. 11% of the pop. connected to the grid, but only 2% of the pop. cook on electricity.
- Nonetheless, over the past decade investment in the "grid" and "off-grid" solutions >\$1B, while investments in the cooking energy subsector >\$15M.

Deforestation Directly Impacts Every Malawian Household

- In rural areas: Deforestation leads to soil erosion/run off, resulting in decreasing agricultural productivity, negatively impacting food security.
- In urban areas: Deforestation results in incr. loadshedding/blackouts, and higher electricity costs
- ...and overall, deforestation negatively impacts national economic development and undermines hard fought development gains—leaving Malawi more susceptible to climate change.

OBSERVATIONS FROM EXPERIENCE TO DATE: WE NEED TO FOCUS (AND TO GET THE FOCUS CORRECT)

The problem in the FORESTRY SECTOR is... the loss of natural forests

Why? Unmet urban cooking, heating and industrial energy demand

To the FORESTRY SECTOR are all cooking/heating woodfuels the same?

- **No!!!!** Need to focus first/last/most on the woodfuel uses that are driving defor/degred:
 - Charcoal = #1
 - Industrial firewood = #2

Historically, what has been the focus of the FORESTRY SECTOR

- TREE PLANTING, TREE PLANTING, TREE PLANTING
- What about protecting existing forests?
- What about restoring degraded forests?

Historically, what has been the focus of the ENERGY/COOKING ENERGY SECTOR?

- ENERGY SECTOR FOCUS = on grid/offgrid ≠ cooking/heating/industrial energy; and,
- Majority of cooking energy/technology focus has been on firewood stove—so not focused on addressing defor/degred priority #1 or #2

SUMMARY: Most investments (GoM, Donor) have NOT addressed the causes/problem, so cannot/have not contributed to the solution



Strengthen regulatory and enforcement framework



Promote AE/FE



Increase the supply of sustainable charcoal



Improve forest management and conservation



Increase GoM capacity for systematic data collection & use

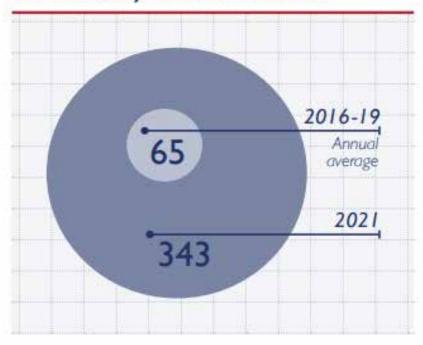


Strengthen regulatory and enforcement framework

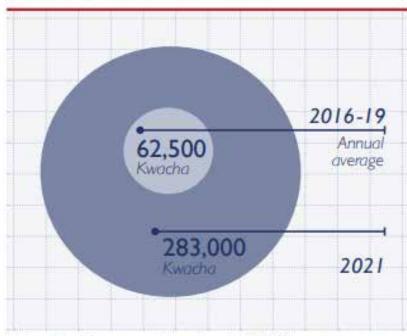


ARE IMPROVEMENTS IN LAW ENFORCEMENT AFFECTING CHARCOAL PRICES? YES!!!

Number of convictions for forestry related crimes



Average fine levied for forestry related crimes



Malawi's minimum monthly salary is 42,000 kwacha, approx.

- Data not updated above... but 65 343 590 people convicted in 2022
 - ~100% increase in charcoal prices between. Sept. 2020 Sept. 2022



Promote AE/FE



PROMOTING ALTERNATIVE ENERGY AND COOKING TECHNOLOGY: URBAN HOUSEHOLDS WANT ALTERNATIVES!!!



Malawi's LPG sector doubled in the last few years!

And it is set to double again this year!

2019/2020

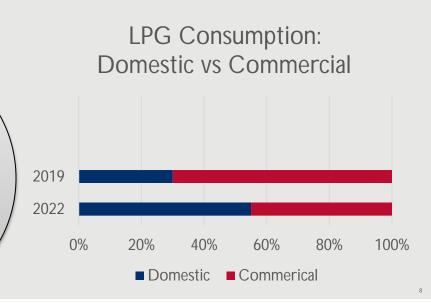
3 LPG bulk importers imported 1,030,000kg

2021/2022

8 LPG bulk importers imported +2,000,000kg*

48

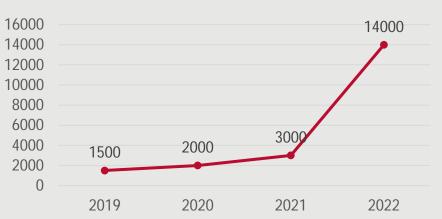
Registered LPG distributors in Malawi (2022)





PROMOTING ALTERNATIVE ENERGY AND COOKING TECHNOLOGY: URBAN HOUSEHOLDS WANT ALTERNATIVES!!!

ICC 2019 - 2022



2019 0 ICC producers

VS

2022 4 ICC producers

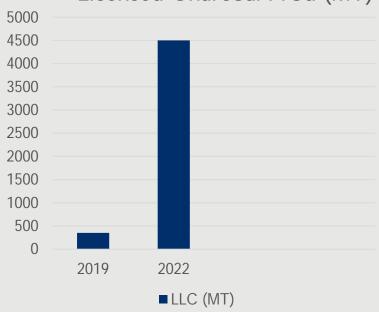




Increase the supply of legal licensed charcoal

Licensed Charcoal Prod (MT) LLC CHARCOAL PRODUCTION /DEMAND ARE GROWING!!!





LLC CHARCOAL LICENSES (NUMBER INCREASING!!

2019 = 3

2022 = 10

2023 = ???

